REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested in view of the following remarks.

Summary of the Office Action

Claims 1-7 stand rejected under 35 U.S.C. §102(e) as being anticipated by Lee (U.S. Patent Publication No. 2001/0038372 A1).

Claims 8-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Okuzono et al. (U.S. Patent Publication No. 0043178).

Summary of the Response to the Office Action

Applicants cancel claims 12 and 13 without prejudice or disclaimer, amend claims 1-11 to recite the claimed invention more clearly, and add new claims 14-20 by this amendment. Accordingly, claims 1-11 and 14-20 are currently pending.

Claim Rejections Under 35 U.S.C. §102(e)

Claims 1-7 stand rejected under 35 U.S.C. §102(e) as being anticipated by Lee (U.S. Patent Publication No. 2001/0038372 A1). Applicant respectfully traverses the rejection at least for the following reasons.

Independent claim 1, as amended, recites a combination of steps, including in part:

> modulating the current most significant bit data in accordance with a difference between the delayed most significant bit data and the current most significant bit data, the maximum gray level value available for the modulated current most significant bit data being greater than the maximum gray level value available for at least one of the delayed most significant bit data and the current most significant bit data. (Emphasis added.)

Lee fails to teach or suggest at least this feature of claim 1 as amended. The portion of Lee relied on by the Office, paragraph [0102], and the preceding paragraphs [0098] – [0101] and

Fig. 12 clearly fail to teach or suggest the above noted feature of claim 1. (It is noted that Fig. 12 of Lee appears to have mistakes in that the number of input data bits that are split do not add up to 8 bits.) Specifically, these portions of Lee teach that the R gray signals of the present frame and of the previous frame received by the data gray signal converter 480, and the modified gray signals generated are all 6 bits wide. The output gray signal becomes 8-bit wide only after the unmodified 2-bit LSB gray signals are added to the modified gray signals. See paragraphs [0100] and [0102]. In contrast, claim 1, as amended, recites that "the maximum gray level value available for the modulated current most significant bit data," which does not have a least significant bit data component, is "greater than the maximum gray level value available for at least one of the delayed most significant bit data and the current most significant bit data." As a reference, claim 3, as amended, recites combining the "modulated current most significant bit data" with the "current least significant bit data" to generate an "output video data."

Accordingly, at least for the reasons detailed above, Lee fails to anticipate claim 1 as amended. Further, claims 2-4 depend from claim 1 and incorporate all the features of claim 1. Hence, Lee also fails to anticipate claims 2-4 at least for the same reasons that claim 1 is not anticipated. With no other rejections applied to claims 1-4, applicants respectfully submit that claims 1-4 are allowable.

Independent claim 5, as amended, recites a combination of elements, including in part:

> a modulator modulating the most significant bits of data of the n^{th} frame in accordance with a difference between the most significant bits of data for the $(n-1)^{th}$ frame and the most significant bits of data for the n^{th} frame, the maximum gray level value available for the modulated most significant bits of data being greater than the maximum gray level value available for the most significant bits of data for at least one of the $(n-1)^{th}$ frame and the n^{th} frame, wherein n is a positive integer. (Emphasis added.)

Lee fails to teach or suggest at least this feature of claim 5 as amended. As noted above, the portion of Lee relied on by the Office, paragraph [0102], and the preceding paragraphs [0098] – [0101] and Fig. 12 teach that the R gray signals of the present frame and of the previous frame received by the data gray signal converter 480, and the modified gray signals generated are all 6 bits wide. The output gray signal becomes 8-bit wide only after the unmodified 2-bit LSB gray signals are added to the modified gray signals. In contrast, claim 5, as amended, recites that "the maximum gray level value available for the modulated most significant bits of data," which does not have a least significant bit data component, is "greater than the maximum gray level value available for the most significant bits of data for at least one of the $(n-1)^{th}$ frame and the n^{th} frame." As a reference, claim 8, as amended, recites "a data driver combining the modulated most significant bits of data from the modulator and the least significant bits of data bypassed from the input line to generate a modulated video data . . ."

Accordingly, at least for the reasons detailed above, Lee fails to anticipate claim 5 as amended. Further, claims 6 and 7 depend from claim 5 and incorporate all the features of claim 5. Hence, Lee also fails to anticipate claims 6 and 7 at least for the same reasons that claim 5 is not anticipated. With no other rejections applied to claims 5-7, applicants respectfully submit that claims 5-7 are allowable.

Claim Rejections Under 35 U.S.C. §103(a)

Claims 8-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Okuzono et al. (U.S. Patent Publication No. 0043178). Applicant respectfully traverses the rejection at least for the following reasons.

Claim 8 depends from and incorporate all the features of claim 5, including the feature of claim 5 that is not taught or suggested by Lee, as discussed above in the preceding section.

Okuzono also fails to teach or suggest this feature of claim 5 that is incorporated into claim 8. Since Lee and Okuzono, either individually or in combination, fail to teach or suggest at least this feature discussed above, claim 8 is not obvious over Lee in view of Okuzono. Hence, applicants respectfully submit that claim 8 is allowable.

Independent claim 9, as amended, recites a combination of elements, including in part:

> a data modulator modulating most significant bits of the RGB data based on a look-up table storing modulated most significant bits of the RGB data, wherein the maximum gray level value available for the modulated most significant bits of the RGB data is greater than the maximum gray level value available for the most significant bits of the RGB data. (Emphasis added.)

Lee and Okuzono, alone or in combination, fail to teach or suggest at least this feature of claim 9 as amended. The Office appears to rely on Lee with respect to this feature of claim 9. However, as discussed above in connections with claims 1 and 5, the portion of Lee relied on by the Office, paragraph [0102], and the preceding paragraphs [0098] – [0101] and Fig. 12 teach that the R gray signals of the present frame and of the previous frame received by the data gray signal converter 480, and the modified gray signals generated are all 6 bits wide. The output gray signal becomes 8-bit wide only after the unmodified 2-bit LSB gray signals are added to the modified gray signals. In contrast, claim 9, as amended, recites that "the maximum gray level value available for the modulated most significant bits of the RGB data," which does not have a least significant bit RGB data component, is "greater than the maximum gray level value available for the most significant bits of the RGB data." As a reference, claim 9, as amended, further recites "a data driver . . . combining the modulated most significant bits of the RGB data and the least significant bits of the RGB data, which bypassed the data modulator, to generate a modulated video data . . ."

The Office does not rely on Okuzono for the above noted feature of claim 9 as amended, and Okuzono fails to teach or suggest the feature. Accordingly, Lee and Okuzono, alone or in combination, fail to teach or suggest at least the above noted feature of claim 9.

At least for the reasons detailed above, claim 9, as amended, is not obvious over Lee in view of Okuzono. Further, claims 10 and 11 depend from claim 9 and incorporate all the features of claim 9. Hence, claims 10 and 11 are also not obvious over Lee in view of Okuzono at least for the same reasons that claim 9 is not obvious. With no other rejections applied to claims 9-11, applicants respectfully submit that claims 9-11 are allowable.

Newly Added Claims

By this amendment, applicants add new claims 14-20. New claims 14-16 depend from claim 1 and are allowable at least for the same reasons that claim 1 is allowable as detailed above. Also, new claims 17 and 18 depend from claim 5 and are allowable at least for the same reasons that claim 5 is allowable as discussed above. Finally, new claims 19 and 20 depend from claim 9 and are allowable at least for the same reasons that claim 9 is allowable as explained in detail above.

Conclusion

In view of the foregoing, withdrawal of the rejections and allowance of the pending claims are earnestly solicited. Should there remain any questions or comments regarding this response or the application in general, the Examiner is urged to contact the undersigned at the number listed below.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 08-1641. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,
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